

# MAUIMOTH SPRECKELSVILLE DITCH IS FINISHED

LONG the slopes of Haleakala, the vast volcanic crater that dominates all the island of Maui, there stretches a waterway that is the largest in all Hawaii, and is one of the most notable engineering feats in the Western world. From Kailua to Spreckelsville it extends a distance of something over twenty-one miles, and in that distance it crosses gorge after gorge of great depth, burrows through tremendous hills and skirts along frightful precipices and winds around vast valleys. Taking its waters from far up the wooded slopes of the rain belt of the mountain, where all roads end and the jungle is thick and dark and rushing streams roar in every gulch, it leads them by gentle ways out into the sunshine and light of the bare brown uplands to the west, and instead of rushing madly by helter-skelter down to the sea to be lost uselessly, they are made to heed the behests of man and to enrich and make green with growing cane those sun baked hillsides.

## THE WORK COMPLETED.

Last Thursday morning the last spadeful of earth was flung from this new waterway, the last great pipe was tested and found sound, the last tunnel was completed, and from far at its head there came a rush of water, brown and thick as first flicking along the bottom of the way that had been prepared for it, picking up clods of light earth here or a bit of plank there, and ever rushing on, swelling as it grew, roaring down into huge siphons, to come up again, creaming with foam, and well out into the ditch again, dash through long, dark, dripping tunnels, slide swiftly through flumes and at last to come slipping and sliding, and babbling down through alleys of waving green cane into the great reservoir that had been made ready for it, and thence to be turned by the twist of a wheel this way or that to water the lands to satisfy whose thirst it had been gathered at such expense of time and of labor and of money.

In the language of the people of East Maui it is known as the "new ditch" and in the official plans it is described as the "Lowrie Irrigation Ditch." After Mr. William J. Lowrie, its inventor and the manager of the Hawaiian Commercial and Sugar Company's plantation and mills at Spreckelsville, but it might much better be termed a canal, for such it is in reality with its eleven feet of width and four feet of depth throughout those twenty-one and more miles. It is big enough anywhere, except of course, through the numerous siphons, to float a boat; despite its gradual grade—four feet in the mile—no current is so mighty that a man can scarce stand against it. In a single day it will supply the plantation with 60,000,000 gallons of water! Sixty million gallons is no small quantity when you remember that it will furnish all the water for drinking, cooking, washing, street and lawn sprinkling for four cities the size of San Francisco or perhaps ten cities of the population of Honolulu!

## THIRTEEN MONTHS' WORK.

Such is the great canal that has just been completed and opened for the Spreckelsville plantation on Maui. For thirteen months past the work has been going on, for thirteen months it has been the matter of greatest anxiety for Manager Lowrie, early and late, night and day, he has watched over its growth, now after these weary months of work as a father over that of his first born, and now worry and eternal vigilance it is done and the brown flood rolls smoothly along the foothills and is ready for the great work of reclaiming those acres of upland and making them green and fat with the tall cane.

Nearly a quarter of a million dollars it has cost the company and it has added many a grey hair to Mr. Lowrie's head. And what has been gained? Along those upper slopes of the mountain was a stretch of bare land, a mile and a half in width, and six miles and a half long; from the boundaries of the Pala plantation around to those of Kihel, looking southwesterly over Maunaloa bay and the sea toward the Kahoolawe "cattle land." It was called, for it was far above the line of other ditches and it was so faced to the ocean and cut off by the eastern ridges of Haleakala that rain fell but seldom and then in such torrents that it swept over the land and washed it clean without doing it good. The tract was a dead over it harshly and lifted its powdery surface and swept along, bearing clouds of red dust until from afar, with the sun shining through, it seemed as though the whole slope was aflame, or that Pele had awakened from her long sleep in the great cloud capped crater above and had burst forth for a dance along its lower rim.

But as you rode over it it seemed a thousand pities that it could not be brought to some use. Your horses feet fell softly, with a "pad pad" like the camel on the desert. Red and rich, and loamy it was, with scarce a rock or a boulder in a hundred yards in any direction. But it was dry. Not a drop of water was to be had for irrigating it and so it remained bare and even the hardy banana had a hard struggle for existence, and the haunt of dust storms, bearing always over it the "fery cloudy pillar," which marked its whereabouts, while the lands below brought forth eight to twelve tons of sugar per acre and netted the stockholders in the plantation thousands of dollars.

## INCEPTION OF PLAN.

Then one day as Mr. Lowrie rode over it, coughing the red dust from his lungs and wiping it from his eyes, he resolved to reclaim it. Six thousand acres of good land was there and once the water could be found to cover it, it could be made as good as or better than any other in the 36,000 acres now in the plantation. All that was needed was the water. If that there was enough and more than enough at Kailua, twenty miles to eastward and in all the thousand of jungle-masked gorges and gorges of the rain belt beyond. The problem was to get it to the plantation. On the face of it it looked simple enough for at its highest point the land was but 47 feet above sea level, while at Kailua twenty years before, old Claus Spreckels had taken out a ditch of water the lower levels of the Spreckelsville plantation so stupendous had been the engineering difficulties to overcome that when the water reached the plantation levels nearly three-fourths of that height had been lost and the ditch covered only the lands far from the sea. Pumps had been put in at an enormous expense and 150 additional feet thus gained but the water thus obtained was slightly brackish and the expense of operating them was a terrible drain upon the income of the plantation. By their means many hundred additional acres were reclaimed, but the canal consumption necessary to operate the pumps to water them ate sadly into the profits

and other methods of watering the land seemed absolutely necessary. Once seized with the idea of securing water for the higher levels Mr. Lowrie lost no time in going over the land with the plantation engineer, E. L. Van Der Neillen, to see whether it was feasible or not. It took no long time to ascertain that if undertaken the work would cost a vast sum for there were gulches by the score, hundreds of feet deep, to be crossed and ridge after ridge, numerous as the waves of the ocean, to be pierced.

## TOOK PLUCK AND GOLD.

But there was nothing in the way that pluck and energy and science and dollars would not overcome, and Mr. Lowrie thought of those 600 acres of rich cane land which the wind was trying its best to blow into the sea, and he recommended to the directors of the company that the ditch be undertaken.

This was the inception of the Lowrie Irrigation Ditch. On July 28th, 1899, the surveys, having been completed by Mr. Van Der Neillen, the contracts were signed for the work and the great task began of whose completion all Maui learned last week and rejoiced.

It is at Kailua, far over in the Makawao district, that the ditch proper begins. Kailua isn't much of a place; only a deep, deep gulch at whose head a splendid stream of water by three wondrous leaps, comes from the mountain sides into its jungle shaded depths. It is just above these falls that twenty years or more ago a little dam was built and a stream taken out by Claus Spreckels to

few more miles where no great pikia comes and ahead we catch a glimpse of a black scar in the landscape, stretching from the low hanging clouds far up at the 4000 foot level, straight to the sea. Maliko gulch! Anyone who lives on the windward side of Maui will tell you what it is. It is known for the awful length of the road which twists up and down its precipitous sides, for the coconut grove in its bottom, for the tiny little harbor at its mouth where the Haiku Sugar Company used to ship its sugar years ago, but most of all it has been known during the last year or so and will be known for many years to come for the immense siphon which crosses it to convey the waters of the Lowrie ditch. When Mr. Van Der Neillen planned that siphon most of Maui said it couldn't be built, but Mr. Van Der Neillen and Mr. Lowrie said it could and should be, and it is.

It takes a man with a strong nerve to stand at the edge of Maliko gulch and look down into its depths. The cold breezes sweep down from Haleakala and shake the kukui trees until they rattle their stiff branches. Straight up and down are the sides, with scarce room along the faces of the cliffs for the waving sourgrass to grow. Yet down the sides of that canyon, 350 feet and more, were lowered one by one on immense ladders the sections of the huge siphon, sections weighing nearly a ton each, and section by section the siphon was completed. Standing at the top and looking down along the completed work the siphon dwindled from a great black cavern down which a man's body would be lost, to a

rough cobble stones. Once upon a time this pavement may have been smooth but now the stones are so worn and displaced by time and a century of traffic that to proceed over them is a risk of life and limb at every foot advanced.

But the trouble and wear of nerves of the journey is well repaid. Glorious views of the ocean and the higher slopes of Haleakala greet the traveler at every turn, and the forest is a constant delight to the eye. Little stormlets, gusts of rain and wind, sweep down from above every minute, and then are gone and the sun comes blinking forth, shakes the rain drops from his eyes and smiles down on the landscape where every leaf and every blade of grass sparkles and shines with jewels of new fallen moisture. Descending into dark glens, on whose slopes the tree ferns and the bamboo grow thick and deep, a glance mountainwards shows a glistening waterfall, dancing in the sunlight as it springs from a ledge of rock to fall, wreathed in mist into the canyon. Now and then in some particularly favored glen there is an ancient grass house where the traveler may stop and rest. And so the journey goes, one not to be forgotten though the traveler live to be a hundred.

A GREAT RESERVOIR. But the very beauty of the region makes the task of gathering up its waters the more difficult and the way by which the two feeder ditches are brought through that rough region leads the average holder to have largely increased respect for the engineers who accomplished the work. But by devious ways, around the sharp ridges and through them, the water is taken at last to where the land grows more level, and here, at Papanua, a great reservoir has been constructed, a reservoir with a capacity of 120,000,000 gallons and more, for the storage of the water when the fills and brooks on the hillside begin to run low and the fields below are parching under the heat of the burning sun. It is a mammoth undertaking in itself, this reservoir. It is built on the high hills, looking off to the sea nearly a thousand feet below. A great bank of earth and stone has been stretched across a narrow valley and there the water has been imprisoned, a body of water 800 feet long and 500 feet wide, running far back into the hills, shining and glistening in the sunlight, a landmark for all the region higher up on the sides of the mountain. From it by an underground way the water may be drawn off into Nahihale gulch where there is a catch-water dam and so into Kailua gulch where the heads of the canals are. Numerous are the devices to prevent the loss of one single drop of water, and henceforth all must follow the ditches to be at last absorbed into the thirsty soil of the distant plantation for the nourishment of the sprouting cane.

SOME OF THE FIGURES. From Kailua, to the end of the Lowrie canal at the boundary of the Kihel plantation the distance is 21.5 miles. To give some idea of the vastness of the undertaking it may be stated that its cost to the company will be close to a quarter of a million dollars. The original estimate was \$250,000, but it will cost somewhat less than this sum, about \$235,000, in all likelihood. There are in the length of the canal seventy-four tunnels with a total length of 29,320 feet or nearly four miles; there are nineteen flumes whose total length reaches 1965 feet and twelve pipe lines, or siphons, with a total length of 4760 feet. Of excavations there is a total length of 55,567 feet. These figures are for the Lowrie canal only and take no account of feeder canals and the many small adjuncts which have been built at various places along the line of the canal to catch any water that might by chance go elsewhere than into the canal. If these were added to the length of the canal it would reach figures at least half as large again as those quoted.

Mr. Lowrie himself is one of the most enthusiastic believers in the possibilities of the new canal. "When we get that water running on that stretch of bare

land," said he, "we shall be able to cultivate six thousand more acres than we can today. My hope is and my belief is that in two years more this plantation will be putting on the market 50,000 tons of sugar each year. We should be doing it next year if it were not for the shortage of labor and other things that have hindered us in our work but 1902 will see the output of Spreckelsville 50,000 tons at the least."

## WHAT CANAL WILL DO.

"All of the six thousand acres which we have reclaimed will not be cultivated each year by any means. By getting it under cultivation we get just that much more land for our operations. We could not cultivate each year all of our available land, some must be left to grow up again in 'ratoon' or second growth cane, some must be left fallow and given a year or so of rest, and so on. But by the aid of the new ditch we shall double our output in two years more and we shall likewise cut down to a large extent one great item of expense—the operation of the pumps. Our coal bill is something enormous annually, and most of it goes to supply the pumps. Their consumption of coal costs us about \$25 per day when they are working, and even then they send the water only to the 150 feet level. Besides that the water from them is slightly brackish and the cane on the lands which they supply with water needs mountain water to refresh it and this the new ditch will give. In the future we shall only use the pumps in the dry seasons when there is not enough water in the two

schemes of Manager W. J. With the growth of the plantation unsuitableness of Spreckelsville site for the mills and the activities of the plantation has been apparent. It is situated at the north-eastern extremity of the fields on the Kihel side of the was a haul of ten miles or more, then there is the wind. For nine months in the year the trade blow across the neck of land joins Haleakala crater and craters constantly from the north. It is at the north-easterly extremity of this neck of land that Spreckelsville stands, and to haul the cane, those sweeping winds all the way face of the fierce gales became a fact that was no joke. A little gauge railroad runs all through plantation, and there are nearly a hundred miles of it altogether. There were stout little things, wheels, together like a broncho about and only too often when hauling the cars around a curve in the track the wind the breeze would catch and overturn it bodily, and one like a row of dominoes, the cars go over and half the train was ditched before the crew could thing but look out for themselves. Sides that Spreckelsville was over miles from Kahului, the port where came all supplies and whether the sugar was sent for shipment. So all things considered it was decided by the directors some little time ago to move the whole headquarters of Spreckelsville to the site selected by Mr. Lowrie as the most available for the mills and offices. The new site is practically in the center of the plantation. The haul from the slopes of Haleakala is all down hill, from Kihel is a level straightaway stretch of five miles or more with the back to Kahului it is less than a mile and all down hill.

It is likely that most of the mill will not be moved from the present site. Much of the machinery is twenty years of age and out at it and it will be replaced by new to date works. Some of the parts will be sent over to the other the immense engines for instance, the new mill will in reality be a mill and its capacity will far exceed that of the present one. With the mill will go the central offices and the warehouses and blacksmith repair shops. All that will remain Spreckelsville will be the main residence and those of some of the higher officers, the row of cottages in the rear known as "One," and the stables. When the site becomes less a barren waste than at present it is likely that it will be also removed and Spreckelsville will be in very truly a deserted village.

Besides the removal of the headquarters and the erection of the new Manager Lowrie has another scheme on foot—the widening of the gauge of the plantation railway, present the small track is entirely adequate for the needs of the plantation. The gauge of the Kahului is three feet and up to a short time all the plantation supplies that beyond Spreckelsville had to be shipped from the Kahului road of the plantation at a large additional cost. But for some time past the widening of the gauge has been on and a few more months will see the last mile of narrow track removed, the wider gauge with heavy rails running throughout the plantation, ready several miles of track have laid and it is possible to go to the other limits of the plantation at the hel boundary on the new track. Work is proceeding rapidly under the direction of Superintendent Adams will soon be completed.

Still another projected improvement is the substitution of electric power for steam power. At Kailua where Lowrie and Haiku ditches have heads there is splendid water power that needs only to be harnessed to that that would be necessary to run the mills and even to draw the cane cars here and there over the plantation. Up in famous Iao Valley, westward, the Hawaiian Commercial and Sugar Company owns water power that would enable them to build power houses and develop power for the plantation. The two places would furnish all the power that the plantation would need for all purposes and would as well give electric lights to that section of Maui, Wailuku, Wailua, Kahului and Spreckelsville. Messrs. Grinnell, the engineers, are now Maui for the purpose of figuring on proposed new electrical plants and it is quite likely that one or the other of them will be built within the next year or so.

## Letter From Butaritari.

We are greatly gratified, and a little relieved, at receiving a letter from Mr. W. L. Bingham, dated Butaritari, Gilbert Islands, April 16. It will be remembered that he sailed in his little vessel, the Hiram Bingham, from San Francisco in November last, touching at Honolulu in the latter part of December, which time nothing had been heard from him. It seems that he arrived at Butaritari, in the Southern Gilbert Islands, January 15, and had spent the months between that time and the day of his letter in visiting the islands of the Gilbert group, including Ocean Island. He reports that the working engine of the Bingham was in good condition. Except on Butaritari, where the laws were therefore disregarded, he reports that no vessel had been seen a long time, and that news of the past seven months "would be a change."

## CUTS AND BRUISES QUICKLY HEALED.

Chamberlain's Pain Balm applied to cut, bruise, burn, or like injury will instantly allay the pain and heal the parts in less time than any other treatment. Unless the injury is very severe it will not leave a scar. Pain Balm also cures rheumatism, sprains, swellings, and lameness. For sale by Benson, Smith & Co., Ltd., wholesale agents.



feed the lower levels of Spreckelsville. Strange to say the new ditch heads side by side with this old one, takes its water from the self-same dam, but whereas of old full half the water went to waste over the dam and dashed into foam over the precipices below to delight the eye of perhaps one visitor a year, now the dam is dry and all the water, every drop of it, is diverted into the brimming ditches and goes to water the brown hills to eastward.

It is by a triumph of engineering that the Lowrie ditch, starting from the same altitude as its fellow, which is known as the Haiku ditch, is able to water lands from the 47 foot level to the sea while the Haiku ditch waters but from 20 feet to the sea. These 27 feet are gained by a series of startling engineering feats which begin at Kailua and end only on the slopes above Spreckelsville. Plunging at once from the reservoir into the solid rock a tunnel eight hundred feet in length leads this great waterway to the open air in the next gulch. Then there is a stretch where it circles and winds and writhes along the hillside, keeping a uniform grade of one foot to the mile, the water flowing deep and swift and still, with scarcely a ripple between the smooth-hewn banks. Presently it comes to another tunnel and entering its cemented portal it strikes out of sight to come rippling into the sunlight once more a hundred feet or more beyond. It is here, in a shallow gulch where the bamboo and lananah and kukui trees are thick, it curves markedly, disappears into a tunnel, emerges in the bed of the gulch where a stout stone and concrete dam turns the water of the gulch and gathers it also into the canal. Then it dashes through a series of tunnels into the mountain side, and beyond it sweeps over a wide plateau where a few lone bala trees are scattered and guava bushes and perhaps an ancient Koa tree or a stunted tree fern.

## HERE WAS A BARRIER.

But now comes a greater difficulty. A deep gulch appears ahead, narrow and cutting far up into the mountain side. Instead of winding up its side and so back again, a siphon has been built here. A huge affair it is, of iron pipe, 4 inches diameter, large enough to walk through if you crouch down, brought to this wilderness from the railroad and laid on big pipe wagons drawn by eight or ten or twelve mules. Down the maw of this black pipe the water goes with a rush and a roar, and after you have tumbled down into the gulch and up the hill again boldly into the hill and then into the mountain side, it is 250 feet deep, and its walls are precipitous. It seems a miracle that man could erect such a thing and still a further miracle that the trapped water above does not burst through the confining pipe rather than mount within it. The pressure must be terrible at the bottom but the pipes must be it and at the farther side you see the end of the siphon disappear into the face of the cliff. It is but a short journey the water takes here underground, then skirts along the edge of the canyon, and then turns again boldly into the hill and for near half of a mile, 150 feet deep, as the arrow flies it goes beneath the mountain to emerge again beyond, far from Haleakala, high upon the mountain side, sailing along above the tree tops only a stout bank of rocks and cement and earth preventing it from flooding all the country roundabout.

## ANOTHER GREAT SIPHON.

After an interval of comparatively smooth sailing, not more than four or five siphons and a score or so of tunnels intervening, there comes Kaupakula gulch and here is another immense siphon and another series of long tunnels. Then a

mere grey brown ribbon at the bottom. The men at work below were pigmies, tiny automata, the men on the other side so small that their signals could scarce be distinguished. Strange to say, however, communication with them was ridiculously easy by speaking through the pipe, for it acted as a vast telephone system and proved immensely useful in that regard, a whisper at one end being readily audible at the other.

## QUARANTINE DELAYS.

At length the Maliko gulch siphon was completed, although not until after many days and provoking delays, on account of the quarantine of Maui, owing to the plague and delay in receiving the pipe from Paterson, New Jersey, where it was made and sent overseas. The sections at the bottom were made of three-eighths inch iron, to withstand the immense pressure of the two great columns of water and they were set at the bottom in cement foundations. The work of riveting and putting the sections in place, the delicate task of lowering each section into position was done by Japanese laborers under the direction of Ishikane, one of the brightest Japanese in the Islands. It was all without an accident, something most unusual in a piece of engineering of the kind.

Whether the pipe would stand the pressure and whether the water would flow freely through it were questions that could only be answered by trial and Thursday that trial came, the water from the reservoir into the solid rock a tunnel eight hundred feet in length leads this great waterway to the open air in the next gulch. Then there is a stretch where it circles and winds and writhes along the hillside, keeping a uniform grade of one foot to the mile, the water flowing deep and swift and still, with scarcely a ripple between the smooth-hewn banks. Presently it comes to another tunnel and entering its cemented portal it strikes out of sight to come rippling into the sunlight once more a hundred feet or more beyond. It is here, in a shallow gulch where the bamboo and lananah and kukui trees are thick, it curves markedly, disappears into a tunnel, emerges in the bed of the gulch where a stout stone and concrete dam turns the water of the gulch and gathers it also into the canal. Then it dashes through a series of tunnels into the mountain side, and beyond it sweeps over a wide plateau where a few lone bala trees are scattered and guava bushes and perhaps an ancient Koa tree or a stunted tree fern.

From Maliko it was nearly all easy going. There were many tunnels, one very thick one in particular coming away from the big siphon, and several smaller siphons, and flumes across lesser gulches. Through the canefields of Hamakua and Pala the ditch made its way. At "The Weir" the water was carefully measured, divided into tenths and one-tenths, and cut out to be divided between the Pala Sugar Company and the Haiku Sugar Company, in payment of the right of way of the ditch across their lands. And so valuable is water just here on Maui that this one-tenth of the stream flowing in the Lowrie ditch is divided into tenths and the Pala is entitled to eleven-twentieths while Haiku has nine-twentieths as its share.

## BAD BIT OF LAND.

At the Pala boundary line, the line which divides the lands of the Hawaiian Commercial and Sugar Company from those of Pala, there was a bad bit of land with tunnels where the waterway had to be cemented throughout, and a large siphon constructed. Thence it swept through a field of fine cane around the base of Haleakala to the Kula road, and it will eventually be taken out at Interlaken through the Spreckelsville or Hawaiian Commercial and Sugar Company's lands to water the land it was procured to reclaim.

Under the guidance of Manager Lowrie a member of the Advertiser staff went over the entire line of the canal on Thursday and Friday of last week. From Spreckelsville it was a drive of twenty-five miles over rough, up-hill-and-down-dale roads to Kailua, the head of the canal. Here the ditch proper begins, but all the water to supply it is not taken from the Kailua stream, by any means. For ten miles farther along the mountain side, from Honomanu gulch there come two feeder ditches, good sized waterways which are drained by them and their waters conserved and brought to Kailua to add to the stream that is there taken out and fed by the Lowrie canal and the Haiku ditch to Spreckelsville.

Kailua is the western border of the rain belt. Here all roadways end and only a trail, misnamed the Government road leads on to Hana at the eastern extremity of the island. It is a veritable jungle that this trail leads through; a jungle of tree ferns, bamboo, ohia, lau-

rough cobble stones. Once upon a time this pavement may have been smooth but now the stones are so worn and displaced by time and a century of traffic that to proceed over them is a risk of life and limb at every foot advanced.

But the trouble and wear of nerves of the journey is well repaid. Glorious views of the ocean and the higher slopes of Haleakala greet the traveler at every turn, and the forest is a constant delight to the eye. Little stormlets, gusts of rain and wind, sweep down from above every minute, and then are gone and the sun comes blinking forth, shakes the rain drops from his eyes and smiles down on the landscape where every leaf and every blade of grass sparkles and shines with jewels of new fallen moisture. Descending into dark glens, on whose slopes the tree ferns and the bamboo grow thick and deep, a glance mountainwards shows a glistening waterfall, dancing in the sunlight as it springs from a ledge of rock to fall, wreathed in mist into the canyon. Now and then in some particularly favored glen there is an ancient grass house where the traveler may stop and rest. And so the journey goes, one not to be forgotten though the traveler live to be a hundred.

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## SOME OF THE FIGURES.

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ditches to water all the cane. "Yes, indeed, I think the ditch will pay. It is something that ought to have been done years ago, for it is going to be a great thing for the plantation. It has cost a great deal of money but we are furnished with all the water we want now for all time. We have enough water for our own use and we shall be able to sell some of it at a good price to other plantations."

## SPRECKELSVILLE REJOICES.

At Spreckelsville there was great rejoicing on Thursday when it was made known that the water was flowing through the canal and that all was well with the undertaking. In the evening a mammoth luau was given the employees of the plantation by Mr. Lowrie and nearly every man, woman and child connected with the place, who could come to Spreckelsville, attended. It was served in the dance hall and was in true native style, with not in pot bowls made of leaves and fish and pig cooked in ti leaves in an earthen oven heated by white hot stones. There were other and smaller luaus at different camps on the plantation so distant from Spreckelsville that the employees there were not able to come to the big luau. The news of the ditch's completion was telephoned all over the island for its progress has been watched with much interest by all Maui residents and the successful conclusion of the work was a matter of congratulation for all.

And so at an expensive of over two hundred thousand dollars the greatest engineering feat which has ever been attempted in Hawaii has been completed. The output of sugar from the Islands will be much increased by it, which is good, for sugar means money to the Islands.

## SPRECKELSVILLE WILL BE MOVED FIVE MILES

The New Town Will Be Situated More Advantageously Back of Kahului.

In a little more than a year the town of Spreckelsville will be no more. It is to be wiped out almost entirely, and post office and all it is to be moved to a point in the midst of the cane fields about five miles from its present location and something less than a mile directly back of the port of Kahului.

Not only is the town to be moved away but it is even to lose its name and the name Spreckelsville will no longer have a place on the map. For the new town is to be called Kahului for it will in effect be a part of Kahului, or rather Kahului will be its port.

The spot where the new town is to rise is an unlovely one at the present time. A stretch of bare brown hillside, not a tree in sight, nothing but brown earth and dust and great red boulders. A long low bungalow-like house which will be the men's club house, a trim little office building and two great cement foundations where the smokestacks for the new mills are to stand, piles on piles of boiler iron; these are all that exist of the new town but bit by bit, building after building will be removed from Spreckelsville until the present bare hill side is crowned with smokestacks and a great new mill arises and trees are planted and the new town of Kahului springs into existence.

The plan of abandoning Spreckelsville and moving all of it that is worth moving to the new site is one of the pet